REMARKS

Claims 1-33 are currently pending in this application, with Claims 1, 7, 11, 13, 17, 21, 26 and 29 being independent.

Examiner Divine is thanked for indicating that Claim 11 is allowable.

Claims 21, 26, 31 and 32 are amended to make the claim language more consistent. Claim 28 is amended to correct a minor grammatical issue. The amendments do not affect the scope of the claims.

Claim 29 is changed to remove an "a" that was incorrectly presented in the previous listings of claims. That portion of Claim 29 now conforms to the original language.

The Official Action rejects Claims 1-5 and 7-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,137,587, hereinafter *Muto*, in view of U.S. Patent No. 6,897,972, hereinafter *Noda*; Claims 13 and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,748,337, hereinafter *Minamizawa*, in view of well known prior art; Claims 6 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Muto* in view of *Noda* and further in view of U.S. Patent No. 5,940,582, hereinafter *Akabori*; Claim 12 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,026,258, hereinafter *Fresk*, in view of U.S. Patent No. 4,797,706, hereinafter *Sugishima*; Claims 14, 15, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minamizawa* and well known prior art as applied to Claims 13 and 17 and further in view of *Muto*; Claims 16 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minamizawa* in view of well known prior art as applied to Claims 13 and 17 and further in view of *Akabori*; Claims 21-23 and 25-30 are rejected under 35 U.S.C. §

103(a) as being unpatentable over *Gase* in view of *Tanimoto*; Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gase* in view of *Tanimoto* and further in view of *Muto*; and Claims 31-33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gase* in view of *Tanimoto* as applied to Claims 21, 26, and 29, and further in view of *Muto*.

Objections

Examiner Divine is thanked for withdrawing the objection relating to Claim 12.

Discussion of Application

Pages 2-3 of the present application discuss a situation where a plurality of print jobs is sent from a variety of terminals to a single printer. An issue arises when some of the print jobs are more urgent than others. For example, a user could send a series of print jobs so that the first print job arrives at the printer while the user is still operating the terminal. A problem arises because a user who is at the printer may have to wait for the absent user's print jobs to print. Therefore, as described in the present application, it is desirable to detect the current manual operating state of a terminal sending a print job to determine the proper priority of the print jobs, *e.g.*, if the user is still at their terminal or in route to collect the print job.

Beginning on the bottom of page 16 of the present application, an embodiment of the claimed subject matter is described. According to that embodiment, when an input is received from an input means, *i.e.*, when a user performs an operation such as manually pressing a key on the keyboard or moving the mouse, an operation information generating unit is notified that an operation has

been received. Upon receipt of such notification, the operation information generating unit generates a code "key" that indicates an operation has been performed and transmits such to the printer via a LAN. Thus, the printer device can determine how often a user manually operates, *i.e.*, generates a "key", at the terminal, and can thus determine how likely it is that a user is in route to collect the print job. In other words, a user who is typing at a terminal is likely not in route to collect a print job, and that print job receives a low priority. In contrast, a user who is not typing at a terminal is likely in route to collect a print job, and that print job is given a high priority. The previous description is not meant to limit the claims to the discussed embodiment.

Rejections

Claims 1-5 and 7-9

The Official Action rejects Claims 1-5 and 7-9 as being unpatentable over *Muto* in view of *Noda*.

Claim 1 is directed to a printer controller that receives print jobs that are transmitted from a plurality of terminals, and instructs a printer to perform print processing. A detector detects pieces of operation information that each relate to a user's current manual operation of one of the plurality of terminals. A priority determining unit determines priority levels for a plurality of print jobs that are waiting to be printed. A priority level of a print job is determined based on a piece of information that is detected by the detector from a terminal that transmitted the print job. A controller instructs the printer to process the plurality of print jobs in an order that is based on the determined priority levels.

Muto discloses an image output system for outputting images by supplying print information from a plurality of host computers to a printer. As described in column 6, lines 24-26, input information is received from a host computer 3000 via an interface 1700, and the input information is converted into output information for printing. This conversion entails first saving the input information in a reception buffer 1100 and then, as shown in Fig. 7 (first embodiment), output processing the input information before printing. According to the fourth embodiment, which is focused on in the Official Action, it is desired to assign a priority to print jobs (input/output information) depending on which host computer 3000 they originate from. Column 14, lines 16-27 describes that this is done through use of a priority table 1700 that is saved in a RAM 19 or similar device. The priority of each host computer 3000 is assigned depending on how frequently input information of a host computer 3000 is output processed by the printer. That is, as stated in column 14 lines 27-33 and shown in Fig. 17a and Fig. 17b, the priority of an interface increases/decreases depending on how frequently it is used.

The Official Action recognizes that *Muto* does not disclose or suggest pieces of operation information that relate to a user's current manual operation of one of the plurality of terminals, and relies on *Noda* for a disclosure of such subject matter. Basically, the Official Action proposes that *Noda* discloses print information (print job) relating to a user's current manual operation of the terminal because the user manually initiates the print job by actuating the "print" button. To support this idea, the Official Action points to column 4, lines 44-48 of *Noda*, which describes that the user selects the "print" button 707 in the dialog box such that the controller 1010 begins printing. It seems that the Official Action deems the reception of the print job

to be a piece of information relating to the user's current manual operation because the user actuates the "print" button 707 to send the print job. That is not accurate for at least the following reasons.

First, the operation of the "print" button is concluded before the printer receives the print job. That is, by the time the printer receives the print job the operation of the "print" button 707 is in the past.

Second, there is no detection of the user's manual operation of the terminal subsequent to the actuation of the "print" button 707.

Third, even if the reception of a print job indicates that a user manually instructed the print job, *e.g.*, manual operated the "print" button, neither *Muto* nor *Noda* disclose or suggest that a priority is set based on a manual operation. Rather, *Muto* discloses that the priority is set based on the frequency that print jobs are received from each host computer. That is, reception of a manually sent print job does not definitively indicate the manual operation of the host computer. Further, it is conceivable that a host computer could be operated remotely to transmit the print job, in which case a user would not have manually operated the host computer at all.

For at least those reasons, Claims 1 is allowable.

Claim 7 is allowable for similar reasons as set forth with regard to Claim 1.

Claims 2-5, 8 and 9 are allowable at least by virtue of their dependence from Claims 1 and 7, and because they define features that further define over the cited document.

Claims 13 and 17

The Official Action rejects Claims 13 and 17 as being unpatentable over *Minamizawa* in view of alleged well known prior art.

Claim 13 defines a printer controller that receives print jobs that are transmitted from a plurality of terminals, and instructs a printer to perform print processing. A memory stores each of the received print jobs in correspondence with information indicating a transmission origin terminal. A first timer measures, for each terminal, an elapsed time since reception of a most recent print job. A priority determining unit determines a priority level for each terminal according to the measured elapsed times. A controller instructs the printer to process the plurality of print jobs stored in the memory in an order based on the determined priority levels.

Minamizawa discloses a facsimile device having a print priority mode and a facsimile priority mode. In the print priority mode the printing of facsimile transmissions is prohibited, and in the facsimile priority mode the printing of other print data is prohibited. One of the problems associated with devices of that sort is the potential for a user to leave the device in the print priority mode, thereby preventing printing of facsimile transmissions. Accordingly, *Minamizawa* uses a "timing out" period after which the device reverts from the print priority mode to the facsimile priority mode. That is, when the user selects the print priority mode, a period of five minutes is allowed for receipt and printing of other data. After five minutes elapse without reception of other print data, the facsimile device reverts to the facsimile priority mode. If other print data is received before five minutes elapse, at least ten seconds are allowed to elapse before reversion to the facsimile priority

mode. As note above, those operations prevent the device from being left in the print priority mode thereby preventing printing of facsimile transmissions.

The Official Action recognizes that *Minamizawa* does not disclose origin terminal information and takes Official Notice that it is well known in the prior art that printing systems such as *Minamizawa* can include TCP/IP or other type networks that include origin terminal information in their transmission packets and would therefore receive origin terminal information with a print job.

Applicants hereby assert that the Official Notice taken is in error because the subject matter at issue is not capable of instant and unquestionable demonstration as being well-known. That is, it is not instantly and unquestionably well known that a printing system such as *Minamizawa* can include print jobs that include origin terminal information. Accordingly, the Examiner must support the finding taken on Official Notice with adequate evidence. See MPEP 2144.03 (C) where it states that "[i]f applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejections are to be maintained."

However, even assuming, *arguendo*, that the Official Notice taken is accurate, *Minamizawa* does not disclose or suggest a first timer that measures, for each terminal, an elapsed time since reception of a most recent print job. That is, *Minamizawa* only discloses measuring the elapsed time since reception of a print job only from a data processing device, not a print job from a facsimile device. The print priority mode is set by the user and the mode reverts to facsimile priority mode upon timing out of reception of a print job from a data processing device. For at least that

reason the subject matter defined by Claim 13 is not disclosed or suggested by *Minamizawa* in view of the Official Notice, as relied upon in the Official Action.

Claim 17 is allowable for similar reasons as set forth above with regard to Claim 13.

Claim 12

The Official Action rejects Claim 12 as being unpatentable over *Fresk* in view *Sugishima*.

Claim 12 defines a printer controller that receives print jobs transmitted from a plurality of terminals, and controls the printer to perform print processing. At least one detector detects whether an operator is in the vicinity of each terminal. A priority determining unit determines the priority levels for a plurality of print jobs waiting to be printed, and a priority level of a print job is determined based on a detection result produced by the at least one detector for a terminal that transmitted the print job. A controller controls the printer so that the plurality of print jobs is processed in an order based on the determined priority levels.

Fresk involves a method for temporarily locking out print jobs on a network printer/copier when a user operates a copier interface, thereby indicating that a user is making copies. *Fresk* discloses a network copy machine 10 (copier/printer) whose print data is produced by a host computer 16, a portable electronic device 22, or a copier user interface 28. When a user operates the copier user interface 28 it is indicated that a copier user is present and making copies and copy jobs are given priority over the other print jobs sent from the host computer 16 and the portable electronic device 22.

The Official Action seems to recognize that *Fresk* does not disclose at least a printer controller that receives print jobs transmitted from a plurality of terminals, and at least one detector that detects whether an operator is in the vicinity of each terminal. To remedy that deficiency, the Official Action directs attention to *Sugishima* which discloses a series of image processing devices that are interconnected with one another. *Sugishima* seems to divide up a print job among multiple printers to allow for faster completion. That is, the more printers used, the faster all the copies can be produced.

The Official Action proposes that it would have been obvious to connect the printer in *Fresk* as shown in *Sugishima* and that such a modification would embody the subject matter defined by Claim 12 because each copy machine 10 would have a user interface 28 and therefore detect the presence of a user. However, even if one were to interconnect multiple copy machines 10, the result would be multiple copy machines 10 connected to one another, each with a user interface 28. Even assuming, *arguendo*, that one would send a print job from one of the copy machines 10 to the other recipient copy machines 10, the priority of a print job at one of the recipient copy machines 10 (printers) would not depend on the presence of a user at the sending copy machine 10. That is, the user interface 28, as disclosed in *Fresk*, only determines the priority of a user's copy job at the particular copy machine 10 which the user is present. Therefore, it is clear that *Fresk* does not disclose or suggest determining a priority level of a print job based on a detection result produced by the at least one detector for a terminal that transmitted the print job.

For at least that reason, *Fresk* does not anticipate Claim 12.

Claims 21-23 and 25-30

The Official Action rejects Claims 21-23 and 25-30 as being unpatentable over *Gase* in view of *Tanimoto*.

Claim 21 is directed to a printer controller that receives print jobs that are transmitted from a plurality of terminals, and controls a printer to perform print processing. Memory stores each of the received print jobs in correspondence with information indicating a transmission origin terminal. A transmission control unit transmits a request signal requesting transmission of a piece of processing information for a print job to the transmission origin terminal. A controller receives the piece of print processing information transmitted from the terminal that received the request signal, and controls the printer so as to perform print processing of the job, based on the received piece of print processing information. The piece of print processing information relates to a current operation state of the transmission origin terminal.

Gase discloses a network printer with remote print queue control procedure. A number of client processors 10, 12 are connected to a printer 14 via the internet WWW. Both the client processors 10, 12 and the printer 14 include a browser procedure 18 and a server procedure 20. Each client processor 10, 12 includes an application 22 which may have a print job ready for submission to printer 14. A print job is delivered to the printer by sending a URL from the client processor 10, 12 to the printer 14. Once the printer 14 receives the URL, the printer 14 uses the browser procedure 26 to respond to the received URL by accessing, via the WWW, the print job present in the application 22 that is designated by the URL, the application 22 being in any client processor connected to the WWW. When the print job is

accessed, the client processor then responds with the text of the print job, which is delivered to and printed by the printer 14. The printer 14 further includes a job queue 28 which lists the URLs of received print jobs. Before printing the print job, the corresponding URLs are stored in the job queue 28. The job queue 28 is managed by a queue manager 32 which maintains status data, and controls the position of each of the URLs listed on the job queue 28. A job detail page enables the originating client processor to exert control over job queue 28 and the details of the specific job URL. By clicking one of the entries on the job detail page, alterations can be made to: the identity of the job indicated, the state of the job, the number of pages to be printed, the URL of the job, the job description, the owner of the job, and the number of copies to be printed. The queue position of a client processor's URL listed may be changed by operating a change button 60. However, in order to modify the queue position of a client processor's URL, the client processor must have been previously provided with a higher assigned priority level which enables its print jobs to enjoy a higher priority status than other print jobs on job queue 28.

Tanimoto discloses a network printing apparatus that uses designated print paper only for print jobs from a designated client or for a specific job. The Background of the Invention section of *Tanimoto* describes a problem involving the inability of users to use a network printer to print on special kinds of paper. That is, when a user loads a special kind of paper, it is not possible to prevent other user's print jobs from being printed on that paper. Therefore, *Tanimoto* discloses designating a special paper for use only with a designated client or designated print job, thereby excluding all other clients or print jobs from using the special paper.

The Official Action states that it would have been obvious to modify *Gase* to include the above-noted features of *Tanimoto*, and that the resulting combination would embody the subject matter defined by Claim 21. However, neither *Gase* nor *Tanimoto* disclose the subject matter relating to a piece of print processing information that relates to a current operation state of a transmission original terminal. That is, *Gase* only discloses that the URLs are used to retrieve print jobs, and not that the print jobs include any information relating to the current operation state of the transmission origin terminal. *Tanimoto* only discloses determining the identity of the client that sent the job, or what specific job is being sent, and does not relate to information that relates to a current operation state of a transmission origin terminal. That is, *Tanimoto* only identifies the client processor, not its operation state. For at least that reason, Claim 21 is allowable.

Claims 26 and 29 are allowable for similar reasons as set forth above with regard to Claim 21.

Claims 21, 26 and 29 are also allowable at least because neither *Gase* nor *Muto*, alone or together, disclose both transmission/reception of a print job, and transmission/reception of a request signal requesting transmission of a piece of print processing information (relating to a current operation state) for the print job from a terminal, the print processing information relating to a current operating state of the terminal. *Gase* only discloses that the URL directs the printer to download a print job (print data) from a client processor. *Tanimoto* only discloses that the identity of the client processor of the print job is detected, not the operation state.

Claims 22-25 and 27, 28 and 30 are allowable at least by virtue of their dependence from allowable independent Claims 21, 26 and 29.

Claims 14, 15, 18 and 19

Claims 14, 15, 18 and 19 are rejected as being unpatentable over *Minamizawa* in view of *Muto*. Claims 14, 15, 18 and 19 depend from allowable Claims 13 and 17. As *Muto* does not satisfy the deficiencies of the rejections of Claims 13 and 17, Claims 14, 15, 18 and 19 are allowable for at least the same reasons.

Claims 6 and 10

Claims 6 and 10 are rejected as being unpatentable over *Muto* in view of *Noda* and further in view of *Akabori*. *Akabori* does not satisfy the deficiencies of the rejections of Claims 1 and 7, from which Claims 6 and 10 depend. Therefore, Claims 6 and 10 are allowable for at least the same reasons.

Claims 16 and 20

Claims 16 and 20 are rejected as being unpatentable over *Minamizawa* in view of well known prior art and further in view of *Akabori*. Claims 16 and 20 depend from allowable independent Claims 13 and 17 and, as *Akabori* does not satisfy the deficiencies of the rejections of Claims 13 and 17, they are allowable for at least the same reasons.

Claim 24

Claim 24 is rejected as being unpatentable over *Gase* in view of *Tanimoto* as applied to Claim 22 and further in view of *Muto*. *Muto* does not remedy the

deficiencies of the rejection of Claim 22 as discussed above, and Claims 24 is therefore allowable for at least the same reasons.

Claims 31-33

Claims 31-33 are rejected as being unpatentable over *Gase* in view of *Tanimoto* and further in view of *Muto*. *Muto* does not satisfy the deficiencies of the rejection of Claims 21, 26 and 29, from which Claims 31-33 depend. Therefore, Claims 31-33 are allowable for at least the same reasons.

Conclusion

For at least the reasons stated above, it is requested that all the rejections be withdrawn and that this application be allowed.

Should any questions arise in connection with this application, or should the examiner feel that a teleconference would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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